AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of detecting transitions in video comprising:

acquiring a video stream;

detecting transition points in the video stream;

automatically generating segment annotations in the video stream at the detected transition points;

based on the segment annotations, dividing the video stream into a plurality of sub-sections;

determining a probability of whether one or more synthesized transition effects are present at one of the plurality of sub-sections of the video stream, wherein the one or more transition effects are of a specified number and a specified type; and

embedding the probability into the sub-section of the video stream.

2. (Currently Amended) The method of claim 1, wherein the determining ~~said~~the probability is performed by a classifier.

3. (Currently Amended) The method of claim 2, wherein the classifier is provided a fixed-sized portion of ~~said~~the sub-section.

4. (Previously Presented) The method of claim 1, further comprising outputting a location of the one or more transition effects and a duration of the one or more transition effects in the video stream.

5. (Cancelled)

6. (Currently Amended) The method of claim 1, wherein the transition effects comprise ~~comprises~~ one or more of ~~the following~~: a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, and a special effect.

7-10. (Cancelled)

11. (Previously Presented) A method of processing video comprising:

acquiring a first shot and a second shot from a plurality of video streams, the shots comprising a transition free video stream;

detecting transition points in the first and second shots;

based on the transition points, automatically determining a duration of a transition sequence based on probability distribution, the transition sequence including one or more synthesized transition effects of a specified number and a specified type;

generating the transition sequence of the duration, the transition sequence having the one or more transition effects;

generating a video sequence comprising the transition sequence from the first shot to the second shot for the determined duration, wherein the transition sequence is inserted into the video sequence; and

training a classifier to detect a transition effect within the generated video sequence.

12. (Previously Presented) The method of claim 11, wherein the probability distribution represents a fixed duration.

13. (Currently Amended) The method of claim 11, wherein the transition sequence comprises one or more of ~~the following~~: a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, and a special effect.

14-25. (Cancelled)

26. (Currently Amended) A machine-readable medium having sets of instructions which, when executed by a machine, causes the machine to:

acquire one or more video streams and a probability distribution, the video stream including a shot description;

detecting transition points in the first and second shots;

based on the transition points, automatically determine a duration of a transition sequence according to the probability distribution, ~~said~~the transition sequence including one or more synthesized transition effects of a specified number and a specified type;

select, at random, a first shot and a second shot from the one or more video streams, each shot being transition free;

generate the transition sequence of the duration, the transition sequence including one or more transition effects; and

training a classifier to detect the one or more transition effects within the generated transition sequence.

27. (Previously Presented) The machine-readable medium of claim 26 wherein the one or more transition effects include a portion of the first shot and a portion of the second shot.

28. (Currently Amended) The machine-readable medium of claim 26 wherein the video transition sequence includes a portion of the first shot before the transition effect, ~~said~~the the one or more transition effects, and a portion of the second shot after the one or more transition effects.

29. (Currently Amended) The machine-readable medium of claim 26 wherein the one or more transition effects comprise one or more of ~~the following~~: a dissolve, a fade, a wipe, a iris, a funnel, a mosaic, a roll, a door, a push, a peel, a rotate, and a special effect.

30. (Previously Presented) The machine-readable medium of claim 26, further comprising training a classifier to detect the one or more transition effects within the generated transition sequence.

31. (Previously Presented) The method of claim 11, further comprising training a classifier to detect the one or more transition effects within the generated video sequence.

32. (Currently Amended) A system comprising:

a transition synthesizer module to

detect transition points in a video sequence,

automatically generate segment annotations in the video stream at the detected transition points,

based on the segment annotations, divide the video stream into a plurality of sub-sections,

determine a probability of whether one or more synthesized transition effects are present at one of the plurality of sub-sections of the video stream, wherein the one or more transition effects are of a specified number and a specified type, and

embed the probability into the sub-section of the video stream ~~generate a video sequence the video sequence comprising a transition sequence having one or more synthesized transition effects of a specified number and a specified type, wherein prior to generating the video sequence, a duration of the transition sequence is determined based on a probability distribution~~; and

a classifier module, the classifier module to be trained to identify ~~a~~ the transition effect based on the ~~generated~~ video sequence.

33. (Original) The system of claim 32, wherein the transition synthesizer module to generate the video sequence using random video shots from a plurality of video streams, the video shots being transition free.

34. (Previously Presented) The system of claim 32, wherein each synthesized transition effect is associated with the duration based on the probability distribution.

35. (Currently Amended) The system of claim 32, wherein the training of the classifier module comprises re-scaling a time series of frame-based feature values associated with the ~~generated~~ video sequence.